

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A digital information embedding device, comprising:

input device ~~means~~-receiving a digital content input;

a feature value detector ~~detection means~~-detecting a feature value of at least a partial area of said digital content input; and

an information embedder ~~embedding means~~-modifying said area, based on said feature value detected; wherein

said information embedder includes a range determination section which determines a variation range for the pixel value, based on said feature value detected; and

said information embedder changes a value of the pixel in said area within said variation ranged determined.

2. (Currently Amended) The digital information embedding device of claim 1,

wherein:

said input device ~~means~~-receives an image; and

said feature value detector ~~detection means~~-detects as said feature value a value indicating a level allowing a human visual sense to perceive a pixel value vary.

3. (Currently Amended) The digital information embedding device of claim 2,

wherein said information embedder ~~embedding means~~-changes a value of a pixel in said

area only when said feature value detected is a value preventing the human visual sense from perceiving the pixel value vary.

4. (Currently Amended) The digital information embedding device of claim 2, wherein said information embedder ~~embedding means~~ includes a range determination section ~~means~~ setting a larger variation range for the pixel value if said feature value detected has a higher level allowing the human visual sense to perceive the pixel value vary, and said information embedder ~~embedding means~~ changes a value of the pixel in said area within said variation range determined.

5. (Cancelled).

6. (Currently Amended) The digital information embedding device of claim 1, wherein said feature value detector ~~detection means~~ includes a transform section ~~means~~ orthogonally transforming a value of a pixel in said area to detect as said feature value at least one high frequency component of a frequency component orthogonally transformed.

7. (Currently Amended) The digital information embedding device of claim 1, wherein:

said input device ~~means~~ receives an image;

said feature value detector ~~detection means~~ detects as a feature value a value in brightness of a pixel included in said area; and

said information embedder ~~embedding means~~ includes a range determination section ~~means~~ setting a larger variation range for a pixel value if said value in brightness

detected is smaller, and said information embedder ~~embedding means~~ changes a value in brightness of the pixel in said area within said variation range determined.

8. (Currently Amended) A computer-readable recording medium having recorded therein a program provided to embed digital information and causing a computer to perform the steps of:

receiving a digital content input;

detecting a feature value of at least a partial area of said digital content input; and

modifying said area, based on said feature value detected,

wherein the step of modifying includes the step of determining a variation range for the pixel value, based on said feature value detected, and of changing a value of the pixel in said area within said variation range determined.

9. The recording medium of claim 8, wherein:

the step of receiving includes the step of receiving an image; and

the step of detecting includes the step of detecting as said feature value a value indicating a level allowing a human visual sense to perceive a pixel value vary.

10. The recording medium of claim 9, wherein the step of modifying changes a value of a pixel in said area only when said feature value detected is a value preventing the human visual sense from perceiving the pixel value vary.

11. The recording medium of claim 9, wherein the step of modifying includes the step of setting a larger variation range for the pixel value if said feature value detected

has a higher level allowing the human visual sense to perceive the pixel value vary, and of changing a value of the pixel in said area within said variation range determined.

12. (Cancelled).

13. The recording medium of claim 8, wherein the step of detecting includes the step of orthogonally transforming a value of a pixel in said area to detect as said feature value at least one high frequency component of a frequency component orthogonally transformed.

14. The recording medium of claim 8, wherein:

the step of receiving includes the step of receiving an image;

the step of detecting includes the step of detecting as a feature value a value in brightness of a pixel included in said area; and

the step of modifying includes the step of setting a larger variation range for a pixel value if said value in brightness detected is smaller, and of changing a value in brightness of the pixel in said area within said variation range determined.

15. (Currently Amended) A method of embedding digital information, comprising the steps of:

receiving a digital content input;

detecting a feature value of at least a partial area of said digital content input; and

modifying said area, based on said feature value detected,

wherein the step of modifying includes the step of determining a variation range for the pixel value, based on said feature value detected, and of changing a value of the pixel in said area within said variation range determined.

16. The method of claim 15, wherein:

the step of receiving includes the step of receiving an image; and

the step of detecting includes the step of detecting as said feature value a value indicating a level allowing a human visual sense to perceive a pixel value vary.

17. The method of claim 16, wherein the step of modifying changes a value of a pixel in said area only when said feature value detected is a value preventing the human visual sense from perceiving the pixel value vary.

18. The method of claim 16, wherein the step of modifying includes the step of setting a larger variation range for the pixel value if said feature value detected has a higher level allowing the human visual sense to perceive the pixel value vary, and of changing a value of the pixel in said area within said variation range determined.

19. (Cancelled).

20. The method of claim 15, wherein the step of detecting includes the step of orthogonally transforming a value of a pixel in said area to detect as said feature value at least one high frequency component of a frequency component orthogonally transformed.

21. The method of claim 15, wherein:

the step of receiving includes the step of receiving an image;

SHIMADA

Appl. No. 09/875,140

December 6, 2004

the step of detecting includes the step of detecting as a feature value a value in brightness of a pixel included in said area; and

the step of modifying includes the step of setting a larger variation range for a pixel value if said value in brightness detected is smaller, and of changing a value in brightness of the pixel in said area within said variation range determined.